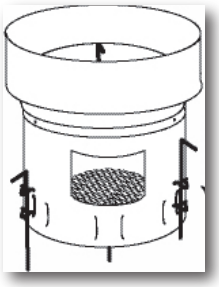
Design for Sustainable Communities
Brief Summary of Team Project Accomplishments

Projects (2006)

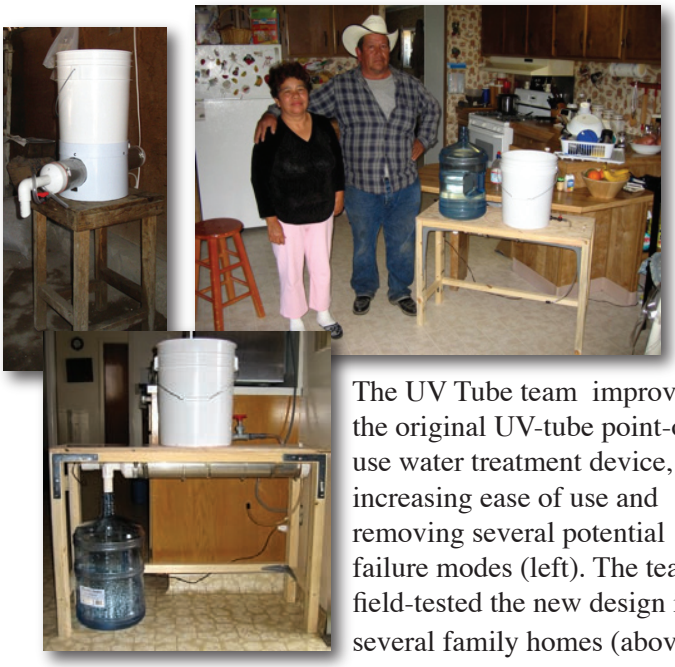
- The **UV Tube Team*** improved the low-cost UV tube water disinfection device to meet rural Mexican household needs, built and implemented the new design in several field sites, and conducted follow-up evaluation.
- The **Moorea Team*** created a virtual environmental model of existing unsustainable emergency housing in French Polynesia and used the model to inform sustainable design changes appropriate for the tropical climate.
- The **Darfur Cookstoves Team*** designed and thoroughly lab tested a cookstove for refugees in Darfur capable of cooking Darfuri meals with only 25% of the wood currently used.
- The **Shelter-Panel Team** developed a comprehensive materials guide to aid the sustainable rebuilding of homes in the Gulf coast region devastated by hurricanes Katrina and Rita.

* indicates student involvement continued beyond the course.

Select Photos



Students test versions of the Darfur Stove designed to meet the needs of refugees in Darfur (above left). The new stove design (above center) is currently being disseminated and used regularly by women in Darfur (above right). The stove saves up to 75% of the fuelwood previously needed for cooking.



The UV Tube team improved the original UV-tube point-of-use water treatment device, increasing ease of use and removing several potential failure modes (left). The team field-tested the new design in several family homes (above).

The Moorea Team was able to model the thermal environment inside emergency kit houses deployed in tropical Moorea using advanced softeware and look at the effect of low cost ventillation improvements (below).